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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/814,512	04/01/2004	George L. Kerber	20-010-DIV	6471
23400	7590	04/13/2005	EXAMINER	
POSZ LAW GROUP, PLC 12040 SOUTH LAKES DRIVE SUITE 101 RESTON, VA 20191			RICHARDS, N DREW	
			ART UNIT	PAPER NUMBER
			2815	

DATE MAILED: 04/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Advisory Action  
Before the Filing of an Appeal Brief**

Application No.

10/814,512

Applicant(s)

KERBER, GEORGE L.

Examiner

N. Drew Richards

Art Unit

2815

**--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

THE REPLY FILED 29 March 2005 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a) ☐ The period for reply expires \_\_\_\_\_ months from the mailing date of the final rejection.  
b) ☒ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**NOTICE OF APPEAL**

2. ☐ The Notice of Appeal was filed on \_\_\_\_\_. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

**AMENDMENTS**

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because  
(a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);  
(b) ☐ They raise the issue of new matter (see NOTE below);  
(c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or  
(d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: \_\_\_\_\_. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).  
5. ☐ Applicant's reply has overcome the following rejection(s): \_\_\_\_\_.  
6. ☐ Newly proposed or amended claim(s) \_\_\_\_\_ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).  
7. ☐ For purposes of appeal, the proposed amendment(s): a) ☐ will not be entered, or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.  
The status of the claim(s) is (or will be) as follows:  
Claim(s) allowed: \_\_\_\_\_.  
Claim(s) objected to: \_\_\_\_\_.  
Claim(s) rejected: \_\_\_\_\_.  
Claim(s) withdrawn from consideration: \_\_\_\_\_.

**AFFIDAVIT OR OTHER EVIDENCE**

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).  
9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing of good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).  
10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

**REQUEST FOR RECONSIDERATION/OTHER**

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because:  
See Continuation Sheet.  
12. ☐ Note the attached Information Disclosure Statement(s). (PTO/SB/08 or PTO-1449) Paper No(s). \_\_\_\_\_.  
13. ☐ Other: \_\_\_\_\_.

TOM THOMAS  
TOM THOMAS  
SUPERVISORY PATENT EXAMINER

Continuation of 11. does NOT place the application in condition for allowance because: Applicant's arguments have been considered but were not found persuasive. It is noted that many of applicant's arguments refer to their specification and figures in describing some of the features claimed. Applicant is reminded that limitations from the specification are not read into the claims, the limitations of the claims are interpreted as they are written. The arguments dealing with features of the counter electrode and anodization ring, for example, as they are described in the specification and shown in the figures are not persuasive arguments for overcoming a rejection of the claims. These arguments will not be individually addressed as they have no bearing on the patentability of the claimed invention.

Applicant argued that the submicron junctions of Imamura are flawed and as such would not enable one of ordinary skill in the art to make and use the invention. This is not persuasive. First, the junctions of Imamura are not flawed. They discuss on page 1587 first full paragraph, that the intrinsic stress in the sputtered Nb caused the leakage and they state on the last line of the first paragraph on page 1586 that their Nb films are stress free. Thus, their junctions would not be leaky. Applicant also argues that since Imamura require sputtering Nb they inherently fail to describe the anodized ring disposed around the perimeter of the counter electrode layer and a perimeter of the tunnel barrier layer. This argument is not persuasive as it is not understood how sputtering a layer teaches away from further processing to form the anodized ring. How does sputtering affect the later formed ring? Applicant has also argued that Imamura don't disclose the claimed anodization ring. In response, the anodized Nb of Imamura figure 1(b) is clearly shown around the counter electrode (upper Nb). Further, as previously explained, the "tunnel barrier layer" is interpreted as that portion of the Al-AlOx layer that is directly underneath the counter electrode. Thus, as seen, the anodized Nb is formed around the perimeter of the "tunnel barrier layer." The portion of the Al-AlOx layer outside of this junction region is not considered part of the tunnel barrier layer and is just an extra insulator on the periphery of the junction. Applicant further argues that the tunnel barrier of Imamura is never exposed to anodization and thus is not the claimed tunnel junction region. This is not persuasive as the claims do not require the tunnel barrier layer be anodized. Applicant further argues that since the claims recite "ring" and "perimeter" they junction is necessarily circular or approximately circular in shape. This is not persuasive as other shapes besides approximately circular shapes have perimeters, and any shape surrounding another is considered to be a "ring" around the first. Thus, this language of the claims do not require a circular or near circular shape. If applicant desires the claims to be limited to a circular shape they are invited to amend the claims to definitely claim such. Applicant further argues that in Lee the anodized Nb layer surrounds the upper Nb layer but not the Al-AlOx barrier layer and thus differs from the anodization ring of the present invention. This is not persuasive. As previously explained and specifically pointed out in subsection d of the examiner's response to arguments in the final rejection, the barrier layer of Lee is anodized, as such the anodization layer as a whole surrounds the Al-AlOx barrier layer. Applicant then argues that Lee fails to disclose the claimed tunnel junction region as claimed. Here, applicant merely recites 3 lines of the claim language without specifically pointing out which portion of the limitation is supposedly not taught by Lee. Next applicant argues that even though Lee discloses "circular" in figure 5, one of ordinary skill in the art would be unable to make the claimed invention based solely on a single use of the word circular. The examiner disagrees and feels that one of ordinary skill in the art would recognize and understand the word circular and be able to form circular shapes. This argument is not clearly understood, is applicant stating that one of ordinary skill in the art doesn't know what a circle is?.